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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,702	03/09/2001	Zai-Ming Qiu	55907USA7A.003	6330

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3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

OH, TAYLOR V

ART UNIT

PAPER NUMBER

1625

DATE MAILED: 12/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/803,702	QIU ET AL.
	Examiner Taylor Victor Oh	Art Unit 1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 October 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) 20-29 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-19 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 4.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

The Status of Claims :

Claims 1-19 are pending.

Claims 20-29 have been withdrawn from consideration.

Election/Restrictions

Applicant's election without traverse of Group I; namely, Claims 1-19 in Paper No. 6 is acknowledged.

Claims 20-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected Groups II, III, and IV, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-19 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-9, 11-14, and 17-20 of prior U.S. Patent No. 09/803,708. This is a double patenting rejection.

Claims 5, 6, 7,10 are objected to because of the following informalities:

In claim 5, " vinyl allyl" is written. However, a comma is missing between the two words. Appropriate correction is required.

In claims 6 and 10, terms " a polysisocyanate" and " one ore more " are written. Appropriate spelling correction is required.

In claim 7, the examples of Q are written in the table format. However, this is not a proper format used in the claim language. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1, 2, 4, 6, 9, 10, 14, 16, and 18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for one fluorine-containing repeatable unit , such as perfluoroalkyl, perfluoroalkylene, perfluoroalkyl, and perfluoroheteroalkylene, does not reasonably provide enablement for any fluorine-containing repeatable unit. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include any

fluorine-containing repeatable unit unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for one fluorine-containing terminal group ,such as perfluoroalkyl and perfluoroheteroalkylene, does not reasonably provide enablement for any fluorine-containing terminal group. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include any fluorine-containing terminal group unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for fluorinated polyols , such as N-bis(2-hydroxyethyl)perfluorobutylsulfonamide, fluorinated oxetane polyols, 1,4-bis(1-hydroxy-1,1-dihydroperfluoropropoxy)perfluoro-n-butane, and etc., does not reasonably provide enablement for all the fluorinated polyols in the field of chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the fluorinated polyols unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for polyisocyanates , such as tetramethylene 1,4-diisocyanate, hexamethylene 1,4-diisocyanate, hexamethylene 1,6-diisocyanate, octamethylene 1,8-diisocyanate, 1, 12-diisocyanatododecane, and etc., does not reasonably provide enablement for all the polyisocyanates in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the

polyisocyanates unrelated to the invention commensurate in scope with these claims.

An appropriate correction is required.

The specification, while being enabling for monofunctional fluorine-containing compounds, such as CF_3O^- , CF_3CF_2^- , $\text{CF}_3\text{CF}_2\text{CF}_2^-$, $(\text{CF}_3)_2\text{N}^-$, $(\text{CF}_3)_2\text{CF}^-$, SF_5CF_2^- , and etc., does not reasonably provide enablement for all the monofunctional fluorine-containing compounds in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the monofunctional fluorine-containing compounds unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for water-solubilizing compounds, such as carboxylate, sulfate, sulfonate, phosphonate, ammonium, and quaternary ammonium groups, and etc., does not reasonably provide enablement for all the water-solubilizing compounds in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the water-solubilizing compounds unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for polymerizable groups, such as acrylate, methacrylate, vinyl, allyl, glycidyl group, and etc., does not reasonably provide enablement for all the polymerizable groups in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with

which it is most nearly connected, to include all the polymerizable groups unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for an electrophilic or nucleophilic moiety, such as hydroxy, secondary amino, oxazolinyl, oxazolonyl, acetyl, acetonyl, carboxyl, isocyanato, epoxy, aziridinyl, thio, and acyl halide, and etc., does not reasonably provide enablement for all the electrophilic or nucleophilic moieties in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the electrophilic or nucleophilic moieties unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for a perfluoroalkyl group, such as perfluoropropyl, perfluorobutyl, perfluorooctyl, and etc., does not reasonably provide enablement for all the perfluoroalkyl groups in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the perfluoroalkyl groups unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for a perfluoroheteroalkyl group, such as such as $\text{CF}_3\text{CF}_2\text{O CF}_2\text{ CF}_2-$, $\text{CF}_3\text{CF}_2\text{O}(\text{CF}_3\text{CF}_2\text{O})_3\text{CF}_2\text{ CF}_2-$, and etc., does not reasonably provide enablement for all the perfluoroheteroalkyl groups in the field of organic chemistry. The specification does not enable any person skilled in the art to

which it pertains, or with which it is most nearly connected, to include all the perfluoroheteroalkyl groups unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for a perfluoroheteroalkylene group, such as $-\text{CF}_2\text{O CF}_2-$, $-\text{CF}_2\text{O}(\text{CF}_2\text{O})_n(\text{CF}_2\text{ CF}_2\text{O})_m\text{CF}_2-$, and etc., does not reasonably provide enablement for all the perfluoroheteroalkylene groups in the field of organic chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the perfluoroheteroalkylene groups unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for non-fluorinated polyols, such as 1,2-ethanoldiol, 1,2-propanediol, 3-chloro-1,2-propanediol, and etc., does not reasonably provide enablement for all the non-fluorinated polyols in the field of chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the non-fluorinated polyols unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for fluorinated monoalcohols, such as 2-(N-ethylperfluorobutanesulfonamido)ethanol, 2-N-(methylperfluorobutanesulfonamido)ethanol, 2-(N-(methylperfluorobutanesulfonamido)propanol and etc., does not reasonably provide enablement for all the fluorinated monoalcohols in the field of chemistry. The

specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the fluorinated monoalcohols unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

The specification, while being enabling for Q as a functional group, such as such as hydroxy, secondary amino, oxazolinyl, oxazolonyl, acetyl, acetonyl, carboxyl, isocyanato, epoxy, aziridinyl, thio, and acyl halide, and etc., does not reasonably provide enablement for all the functional groups in the field of chemistry. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the functional groups unrelated to the invention commensurate in scope with these claims. An appropriate correction is required.

Furthermore, there are "foreman factors or Wands factors" regarding the presence or absence of working examples because, in the instant case, the claims may encompass numerous variations of fluorochemical urethane compositions which may be used in the making of various coating compositions. However, applicants' specification provide the experimental results showing only 76 examples in the specification. Thus, the specification has failed to provide sufficient working examples to support the formation of many fluorochemical urethane compositions in terms of the broad claimed languages. In addition, more than routine experimentation is required and involved (second foremen factor).

See In re Armbruster 185 USPQ 204 (CCPA 1985) and Angstadt et al , 190 USPQ 152, (CCPA 1990).

Claims 8,10, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation "1 to 14 carbon atoms", and the claim also recites " preferably 1 to 8 carbon atoms " , or " preferably 1 to 4 carbon atoms " , or " preferably two carbon atoms " which is the narrower statement of the range/limitation. Therefore, an appropriate correction is required.

In claim 10, a phrase " an excess amount (relative to the polyol) of one or more linear alkylene diisocyanate, and sufficient fluorinated monoalcohols to react" is written. However, this is unclear as to how much is the "excess amount " of one or more linear alkylene diisocyanate ; furthermore, the phrase "sufficient fluorinated monoalcohols" is unexplained how much of fluorinated monoalcohols is reacted with the terminal isocyanate. In addition, the use of the parenthesis is also unclear for interpreting the claim language. Therefore, an appropriate correction is required.

In claim 17, a term " a solvent" is written. However, this is vague and indefinite. It is undefined as to the nature of the solvent; furthermore, it does not show what kind of a solvent is used in the coating composition. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated clearly by Smith et al (WO 93/01349).

Smith et al discloses fluorochemical compositions comprise a fluorinated acrylate monomer, polyalkylene glycol acrylate, a polyalkoxylated polyurethane having pendant

perfluoroalkyl groups containing polyisocyanates, and a fluorinated alcohol , and etc. (see page 14, 1-15). This is identical with the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 703-305-0809. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman can be reached on 703-308-4698. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-2742 for regular communications and 703-305-7401 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



December 24, 2002

Alan L. Rotman
ALAN L. ROTMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600